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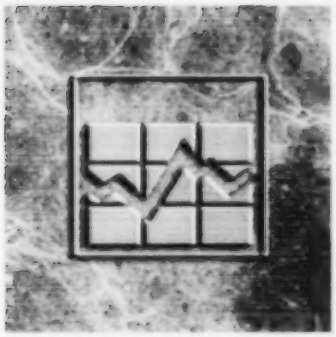
Labour Force Classification in Slid



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LABOUR FORCE CLASSIFICATION IN SLID

October 1992

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The SLID Research Paper Series is intended to document detailed studies and important decisions for the Survey of Labour and Income Dynamics. These research papers are available in English and French, at no charge. To obtain a summary description of available documents or to obtain a copy of any, please contact Philip Giles, Manager, SLID Research Paper Series, by mail at 11-D8 Jean Talon Building, Statistics Canada, Ottawa, Ontario, CANADA K1A 0T6, by telephone (613) 951-2891, or by fax (613) 951-3253.

EXECUTIVE SUMMARY

Labour force status will be an important analytical variable for many users of SLID data. The document discusses the issues involved in deriving this variable, and details the approach to be adopted.

Briefly, a value will be assigned for every one-week period, with three possibilities: E (employed), U (unemployed) and N (not in the labour force). To a large extent, concepts used in the Canadian Labour Force Survey will be used. Since there are several situations where a straightforward approach to the classification is not possible, additional information will be available to data users who wish to adjust the definitions used.

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1. INTRODUCTION

The purpose of this document is to describe the approach for assigning a labour force status to respondents in the Survey of Labour and Income Dynamics (SLID). It was prepared to supplement the information provided in the survey content description (SLID Research Paper Series 92-01A).

Some points germane to the issue are:

- Computer-assisted interviewing (CAI) will facilitate the identification and dating of working spells, absences from work and jobless spells.

- The Labour Market Activity Survey (LMAS) sought to replicate the Labour Force Survey (LFS) approach of assigning one status for a given week. This resulted in the assignment of a status in LMAS to each and every week of the year. SLID will adopt this approach as well. However, given SLID's intention to follow respondents for six years, many users may consider this level of detail excessive.

- SLID is closely modelled on LMAS, which used a highly structured questioning approach (compared with the Annual Work Patterns Survey (AWPS)), for example). LMAS adopted the principle of asking the respondent to report on events that are inherently easier to recall, and then filling in the blanks in between; this seems to have yielded excellent results, particularly for employment. (For unemployment, LMAS monthly stock estimates were 8.5% below LFS estimates at the beginning of the year, and 6.9% over at the end of the year.)

- There is some evidence that the LMAS underestimate of unemployment early in the year is attributable to missed spells of job search, rather than to misreporting of search spell durations.[1] In an attempt to alleviate this problem, respondents who have a jobless spell followed by a job start are asked how they got their job, to trigger their recall of job search.

- SLID interviews should average 30 minutes per household. The reasons for not exceeding that average are cost and respondent burden. Average household size (looking at people aged 16 and over, who will receive the January Labour Interview) is about 2.1. The 30 minutes also includes the time necessary to update the demographic information and to complete the Preliminary Interview for any new household members. The time allocated to the SLID January interview is about the same as that required for LMAS. As in LMAS, interviews will be conducted by telephone.

- Proxy interviewing will be allowed. This is not only to keep costs down but also to keep burden down. If the interviewer has to make 4-5 call-backs to a household to make contact with one person, it can have a negative effect on the whole household's willingness to participate in future years.

Flow charts are provided at the end of the document to illustrate the procedure to be used for labour force classification. Charts 1A to 1D show the process we will go through to establish start and end dates for employer spells. Charts 2A and 2B deal with classification during unpaid absences from work. Finally, Charts 3A to

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[1] See SLID Research Paper 92-04 "The Measurement of Job Search and Unemployment in a Retrospective Setting".

3E concern labour force classification during jobless spells; i.e., periods where the respondent has no employer.

These charts reflect SLID's longitudinal nature. As we are collecting labour information on an annual basis, it is crucial that we be able to link up the jobs and jobless spells recorded during successive interviews. The reference period is from the beginning of January last year to the beginning of January this year. A reasonable amount of information will be fed back from one interview to the next to dampen seam effects on important variables.

2. GENERAL APPROACH FOR THE COLLECTION OF LABOUR INFORMATION IN SLID

Each respondent will be assigned a status relating to every week throughout the six-year period that he/she is in the sample. As in the LFS, labour force status can take one of three values:

- Employed (E) - Employed at any time during the week (including paid absences from a job);
- Unemployed (U) - Not employed throughout the week and looked for work at some time during the month, OR absent from a job due to layoff;
- Not in the labour force (N) - Not employed during the week and did not look for work at any time during the week.

It should be noted that the SLID output files will contain sufficient information to allow researchers to define alternative measures of "labour force status", if desired. For example, it will be possible to separate the N category into those who do and do not want a job, to allow studies of discouraged workers.

The general approach for collecting information to assign a labour force status to respondents can be summarized as follows:

Step 1

Feed back information on employers that the respondent had at the beginning of the reference year and establish dates worked for these employers during the reference year.

Step 2

Identify new employers the respondent worked for during the reference year and establish start and end dates for these new employers. In steps 1 and 2, a maximum of six employers can be identified.

Step 3

Confirm the implicit start and end dates for any jobless spells occurring since the last interview.

Step 4

Collect employer/job characteristics. Characteristics will be collected on up to 3 employers, with the capacity to record one change in occupation, wages and work schedule per employer. If there are more than three employers, three will be selected, giving priority to unended jobs (because of the need to feed back information the following year); among unended jobs, priority will be given to jobs of longer duration.

Step 5

Collect absence data in the context of the employer. Only unpaid absences lasting one full week or longer will be identified. Information on two new absences (i.e., absences initiated during the reference year) per employer will be recorded. In addition there

will be information on absences initiated during the previous reference year.

Step 6

Collect job search information on jobless spells experienced during the reference year. As this is driven by the dates recorded in Step 3, where the names and dates for up to six employers may enter into play, the theoretical maximum number of jobless spells for SLID is seven. We may constrain this for practical reasons.

LMAS allowed for the identification of five jobs -- about 0.3% of all respondents had five or more jobs (151 cases in 1988). By identifying up to six employers in any given year, along with the dates worked, we will virtually eliminate any "gaps" in the year as far as dates worked are concerned.

SLID will collect characteristics on up to three employers. For each employer it will be possible to record one change in wage and occupation during the reference year. This will capture 99.5% of all jobs defined in LMAS (see below, the six most commonly reported patterns in 1988).

# employers	# jobs	% of sample
1	1	78.0
2	2	15.0
3	3	3.4
1	2	1.7
4	4	0.9
2	3	0.5

Although the data collection approach will be somewhat different (and faster, taking advantage of the CAI capabilities) it will be possible to produce a job file along the lines of the one developed for LMAS.

In the process of identifying employer spells and jobless spells, the approach varies by "type of employer". A Type 1 employer is defined as one the respondent was working for at the beginning of the reference year, based on information collected during the last interview. This also includes situations where the respondent was on a paid absence at the beginning of the reference year. A Type 2 employer refers to a job from which the respondent was absent without pay at the beginning of the reference year. A Type 3 employer is a new employer that the respondent began to work for in the current reference year. (This could also be a former employer, i.e., one where there was a break in the employer-employee relationship.)

Chart 1A refers to the process of "confirming the employer". This is a reminder to respondents of the employer(s) they were working for at the beginning of the reference year. (There is a possibility of denial but this is not expected to be a frequent problem, and procedures are being developed to cope with these cases in the field.)

3. INFORMATION ON UNPAID ABSENCES AND ITS USE IN LABOUR FORCE CLASSIFICATION

In the LFS, a person may be considered as having a job from which he or she is absent if the absence is paid, or if the reason for absence is temporary layoff (at a time of the year the person usually works), or if there is a definite return date and the total duration of absence will be less than one year.

If none of these conditions applies, then the person is regarded as not having a job. However, this sometimes conflicts with the respondent's own perception of the situation. A well-known example is seasonal layoffs, in an industry where the worker may be quite confident of returning. The same applies to on-call workers who, in the LFS, are regarded as not having a job during a week in which they did

not work, even if the on-call arrangement has persisted for many years. The proposed approach for SLID is to accept the respondent's perception of whether or not a job exists and then, wherever possible, to collect enough information (eg., on the reason for absence and the presence of job search) to assign a labour force status consistent with the LFS. This approach of adhering as closely as possible to the respondent's perception will make it easier to feed back information the following year.

The basic approach for labour force classification during an unpaid absence may be summarized as follows:

Step 1

If the year began with an absence from an employer, establish the return date. The information on reason for absence will be carried forward from the previous interview. The job search information recorded during the previous interview will be fed back and updated.

Step 2

Establish the start and end dates of unpaid absences of one week or more initiated in the reference year. The absence may be ended or unended. Record information on up to two absences per employer. If more than one absence, record information on the first and last absence, to ensure that unended absences are captured.

Step 3

For each unpaid absence, record the reason for absence. There are basically 3 categories of replies.

(1) People on temporary layoff at a time of the year they normally work, who will be classified as unemployed regardless of job search.[2]

(2) People on seasonal layoff, whose labour force status will depend on job search and possibly student status[1].

(3) Everybody else (illness, accident, pregnancy, personal or family responsibilities, labour dispute, sabbatical, going to school, etc) will be treated as employed as long as the duration of the unpaid absence is less than one year. Once it has exceeded one year, their labour force status will depend on job search and possibly student status (similar approach to people on seasonal layoff).

The proposed approach affords the capacity to capture virtually all unpaid absences. The 1988 LMAS files shows a total of 8,374 absences (unweighted, and including absences initiated prior to the current reference year). Less than 2% of these were third or fourth absences from a given job:

Initiated last year		44.0%
Initiated this year:		
First absence		48.0%
Second absence		7.0%
Third absence	1.6%	
Fourth absence		0.3%

A person's status may be E, U or N during an unpaid absence. Information on the reason for absence and the presence of job search will determine labour force status during the absence. A person on temporary (non-seasonal) layoff will be classified as U for the complete absence. A person on seasonal layoff will be U

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2 Assuming of course that they were not employed at another job during this period.

1 See discussion regarding availability in section 5.2.

throughout any month he or she looked, and N in any remaining months. All other reasons for absence will result in the person being classified as E.

4. LABOUR FORCE CLASSIFICATION DURING JOBLESS SPELLS

A jobless spell is one in which the respondent has no employers. In the context of the Labour Interview with its one-year reference period, a jobless spell may be bounded on the left side by:

- a job separation during the reference year,
- the start of the reference year -- meaning the spell was in progress at the end of the previous year.

Similarly, a jobless spell may be bounded on the right side by:

- a job start (Type 3 employer),
- the end of the reference year.

Information on the context of the jobless spell -- what preceded it and what followed it -- will be available as an aid to recall while questions on activities during the jobless spell are being asked.

Information on job search activities and reasons for not looking for work will be used to establish labour force status during jobless spells.

Although we can attach a labour force status (E, U or N) to each week, we will not ask about job search in each week, but rather in each month. Job search at any time during the month is sufficient for a person to be considered as unemployed during the whole month, assuming the person did not also work in that month. If a person worked part of the month we will have a start (or end) date. If job search

also took place that month, the person would be classified as unemployed in any week in which he or she was not employed.

A person may be classified as U or N during a jobless spell. A jobless spell must last a minimum of one full week to be picked up. Changes of status between U and N during the jobless spell will be captured, but, as noted above, changes in status will be recorded on a monthly basis.

5. CONSISTENCY WITH LFS DEFINITIONS: PROBLEM SITUATIONS

5.1 Job Search

Certain LFS concepts are difficult to apply retrospectively. This is especially true with the reporting of job search. Respondents tend to not report short interruptions in their search activities when replying in a retrospective setting. More specifically, AWPS results have shown that respondents tend to view their search as continuous and to gloss over short interruptions that may have occurred. Although this provides a different picture of transitions in and out of search than that conveyed by LFS linked-record data[4], it may be a better guide to "real" transitions in and out of the labour force.

In addition, since the SLID questionnaire should be capturing the main source of underreporting of search that has plagued past retrospective surveys (i.e., the failure to report search before the start of a job), the "smoothing over" process should tend to result in estimates of unemployment that are higher than those of

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[4]This refers to information on the same respondent collected in two successive months.

the LFS. This is exactly what has been observed in the U.S. Survey of Income and Program Participation (SIPP).

5.2 Availability for Work

A second concept that is difficult to apply retrospectively is that of availability. The LFS excludes from the unemployed: job seekers, temporary layoffs (TLOs), and future starts who were not available for work during the reference week.[5] In the LFS, about ninety percent of persons who are excluded from the ranks of the unemployed because of non-availability are students (see table below). Some of these are full-time students looking for full-time work; others are excluded because they indicated "going to school" as the reason why they could not take a job during the reference week (regardless of what type of job they were looking for and whether or not they were in school full-time).

Availability for work of Job Seekers, Future starts, and TLOs
(1990 LFS annual average)

	Total '000	Not available - student (%)	Not available non-student (%)	Available (%)
Job seekers	1,030	6.4	0.4	93.2
Future starts	94	20.1	9.2	70.6
Temporary layoffs	87	6.4	0.1	93.5
Total	1,212	7.4	1.1	91.5

For SLID, it is proposed that we not ask a question on availability, because of the difficulty of reporting this information retrospectively. This leaves two options for the classification of people looking for work while studying full-time. The first is to count them all as not in the labour force. The second is to count them all as unemployed. Relative to LFS, the first approach (which is the one adopted for

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[5]It should be noted that sickness and personal or family responsibilities are not viewed as impediments to availability.

SLID) will result in an underestimate of unemployment equal to the number of full-time students seeking part-time work (see table below). However, the second approach (counting all full-time students looking for work as unemployed), would result in an overestimate of approximately equal magnitude.

	1991 LFS estimates ('000)	
	Full-time students seeking part-time work (i.e., unemployed)	Full-time students seeking full-time work (i.e., not in the labour force)
JAN	104	42
FEB	94	68
MAR	92	131
APR	77	214
MAY	81	181
JUN	68	167
JUL	3	19
AUG	5	14
SEP	115	36
OCT	110	37
NOV	104	48
DEC	88	42
Annual Average	78	83

5.3 On-call work

Still a third LFS procedure that is difficult to replicate in a retrospective setting concerns on-call workers. These workers are counted as employed only during weeks in which they actually worked; given their on-call status they are assumed to have no job attachment during a week in which they did not work. As the number of persons falling in this group is about 260,000 (according to the Survey of Work Arrangements), special attention is appropriate.

The LFS procedure would result in peculiar labour force transitions if applied retrospectively. In particular, it would mean that E=>N and N=>E transitions

would be observed whenever there is a week without work. It is questionable whether the "withdrawal" from the labour force in these circumstances has any meaning. Indeed, one could argue that work interruptions for on-call workers are part of the conditions of employment.

Thus, on-call workers will be considered as employed over the entire period with an employer, regardless of whether or not they are actually working during a particular week. This is the same approach used in the LMAS. The amount of labour services they provide should not be greatly overstated in the sense that their work schedule information will reflect average hours actually worked per month.

5.4 Future starts

In the LFS, people who are not seeking work but who expect to start a job at a future date are counted as unemployed, if the new job is to start within four weeks. Because this is based on future expectations, it is quite difficult to collect it retrospectively. An alternative approach will be adopted for SLID, which might capture this phenomenon adequately in a retrospective setting. Essentially, it consists of asking people who start a new job when they found that job, and then classifying them as unemployed from then to the job start date, regardless of job search (and assuming of course that they are not working at another job in the interim). An approach like this will help to offset the problem of underestimating unemployment in retrospective surveys, and it is particularly appealing in view of the fact that recent studies have attributed the underestimation to unreported U spells, rather than to a bias in the reporting of unemployment spell durations.[6]

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[6] These suggestions are based on SLID Research Paper 92-04 cited above, and SLID Research Paper 92-05 entitled "Dealing with the seam problem for the Survey of Labour and Income Dynamics".

5.5 Persons on temporary absence at the end of the year who report no longer expecting to return in the following year

The question here is when to date the end of the job. The approach to be used is to ask the respondent when he/she was notified/realized that he/she would not be returning, recognizing that in certain cases, the realization may not be precisely datable.

5.6 Identifying whether a separation is permanent or temporary

The question here is how best to determine the nature of a separation when it is the last event recorded for a job at the end of the year. Here it would appear that the surest way to identify whether or not a separation is perceived as temporary or permanent is to ask the respondent whether or not he/she expects to return to work for the employer. There may be some "not sure" responses here, which can be identified as such. However, the break would be considered permanent for the purpose of labour force classification, with the proviso that information could be updated the following year.

5.7 Identifying whether a "new" job is a return to a former employer

If a worker returns to a former employer, one would normally want to confirm the job information as if this were a Type 2 job, even if it is treated as a Type 3 for the purpose of labour force classification. Thus SLID will ask whether the respondent has worked for this employer before, and, if so, attempt to link up the two employer spells. The interviewer will have access to a roster of previous jobs, making it easier to identify to which previous employer the respondent is returning.

5.8 Job search during absences

Persons on temporary layoff or seasonal layoff (with expectation of return), will be asked about their search activity on a month-by-month basis. However, job search questions will not be asked of persons absent for other reasons. It makes sense to limit the questions to situations where search could be meaningful (such as absences due to layoff) and forego them in situations where one would not expect search to occur (absences due to pregnancy, illness, etc.), and where, indeed, the question may appear fatuous.

5.9 "Want work" question

A "want work" question will be asked of respondents during each jobless spell (not absence), in which no search was carried out. Respondents who wanted work will be asked why they were not looking for work. Responses to these questions will aid those interested in studying "discouraged workers".

5.10 Self-employed and unpaid family workers

The approach for labour force classification during jobless spells is the same regardless of the class of worker in the job prior to or following the jobless spell. However, questions on unpaid absences will be addressed to paid workers only, so that the self-employed and unpaid family workers will be classified as employed for as long as they hold that job. Again, it will be important to look at work schedule information to get a measure of the volume of work done.

6. SUMMARY AND CONCLUSION

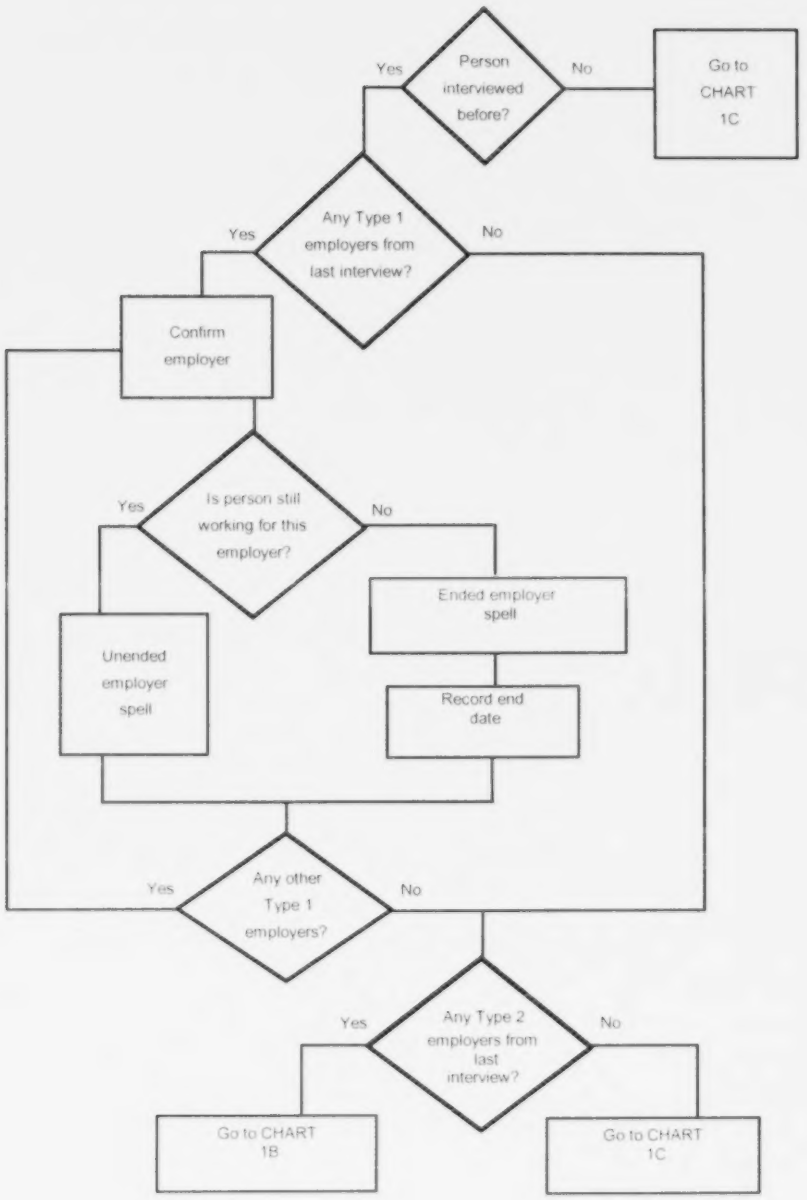
Although the aim of consistency with LFS concepts and estimates is a desirable one, it remains an ideal. The retrospective and longitudinal nature of SLID make it necessary to deviate on a number of points.

Labour force classification is an important area but this should be kept in perspective. The labour market events in themselves -- the start and end dates of jobs, the periods of search and inactivity, and the reasons for inactivity -- are ultimately more important. They should be viewed as data items in their own right rather than inputs required purely for classification purposes.

Classification is a much more difficult exercise retrospectively than it is in a cross-sectional setting. The arbitrary cut-offs applied in the latter (e.g., the four-week reference period for job search) do not necessarily make sense when viewed in a continuous setting, nor is the information about events collected as those events are occurring. Although users will expect a classification scheme comparable to what is produced for the Labour Force Survey, the classification scheme adopted for SLID will be at best a rough approximation. Since there are points in the classification scheme about which there may not be universal agreement, additional information will be available to researchers who can then modify the approach used in SLID to suit their own analytical purposes.

CHART 1A

Starting point for assigning labour force status

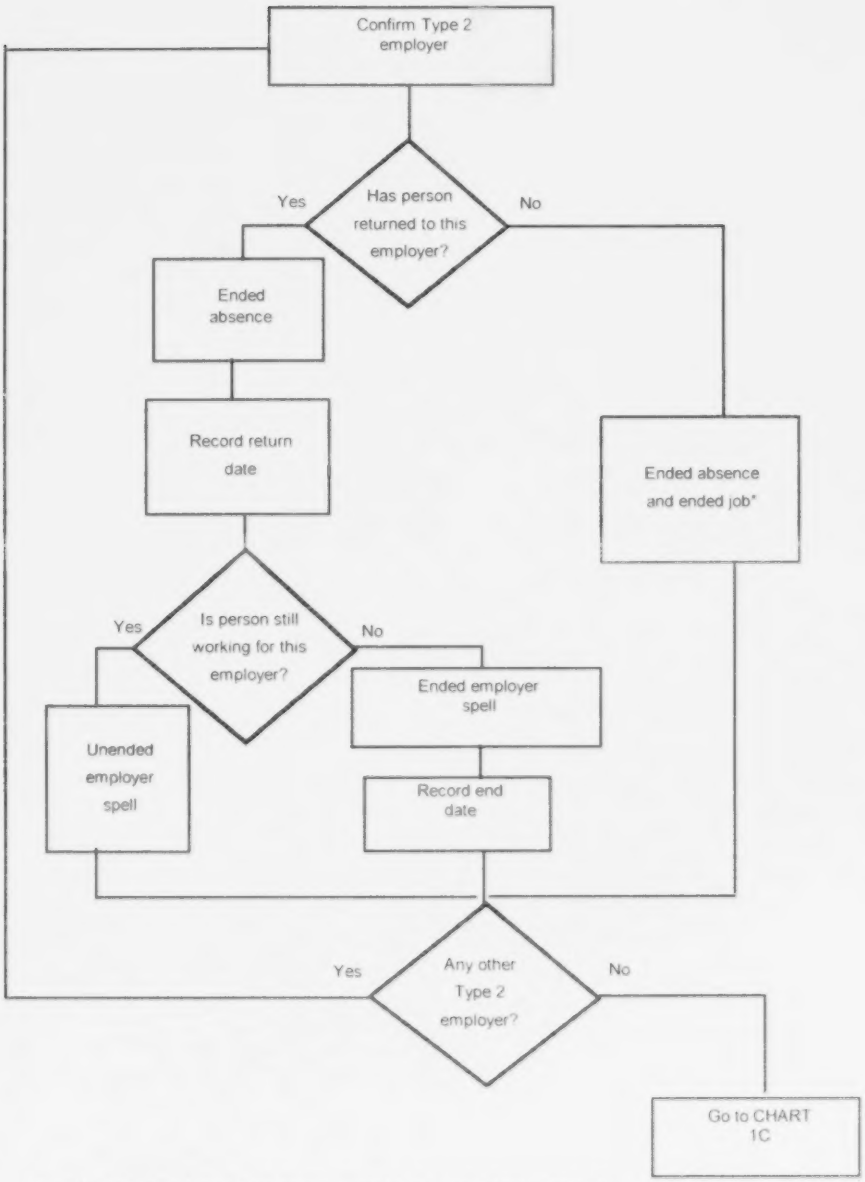


Type 1 employer: Employer the respondent worked for at time of last interview.

(Includes paid absences.)

CHART 1B

Completed for respondents with a Type 2 employer

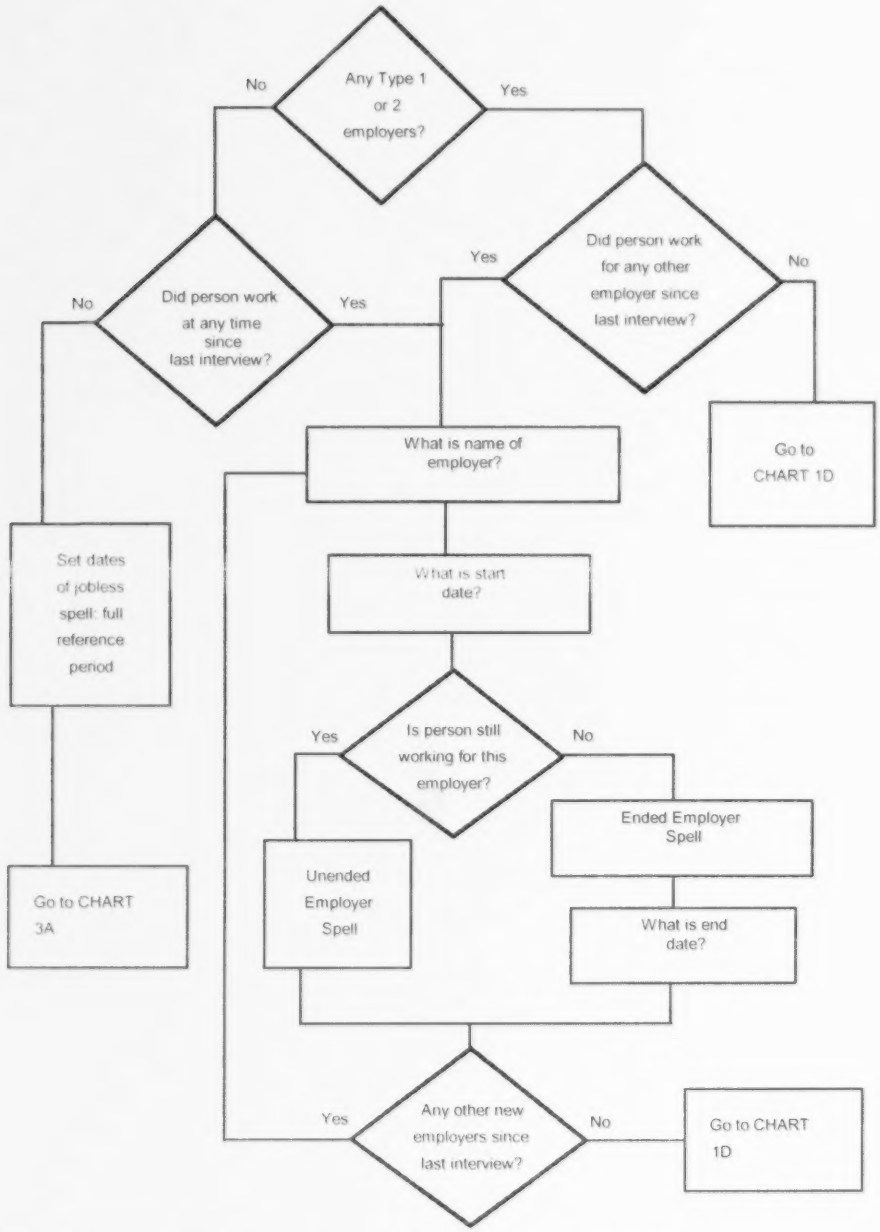


Type 2 employer: At time of last interview, respondent was absent without pay from a job with this employer, but expected to return.

*Information will be collected on expectation of returning but for classification purposes, an absence in excess of one year is treated the same as a jobless spell.

CHART 1C

Completed for all respondents (aged 16-69). Purpose is to identify Type 3 employers.



Type 3 employer: A "new" employer. Respondent may in fact have worked for this employer at some time in the past but, if so, employer-employee relationship was severed.

CHART 1D

Completed for respondents who worked at some time since last i

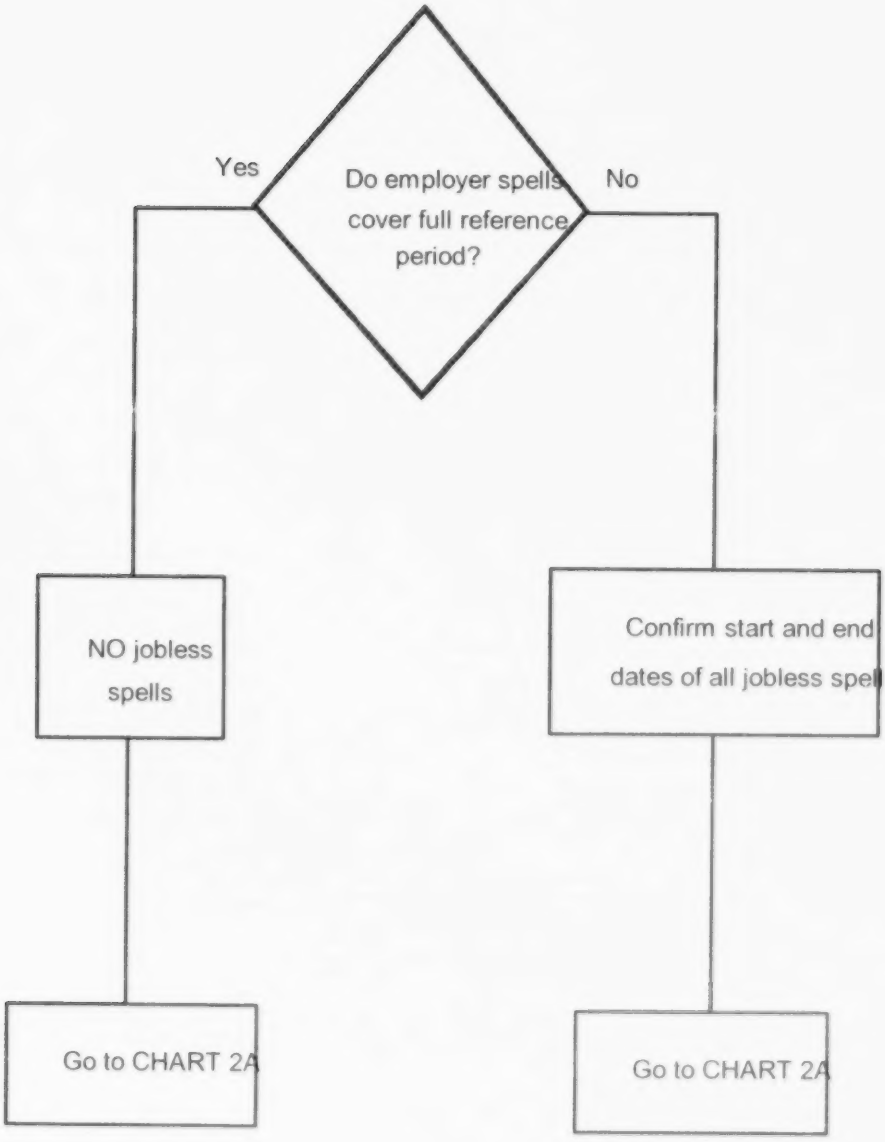

Do employer spells cover full reference period?
Yes
No
NO jobless spells
Confirm start and end dates of all jobless spel
Go to CHART 2A
Go to CHART 2A

CHART 2A - ABSENCES

Completed for respondents who worked at some time since last interview. Assume that respondent is not working for 2 employers simultaneously at any time during year. (If he/she were, the priority of E over U over N would apply.)

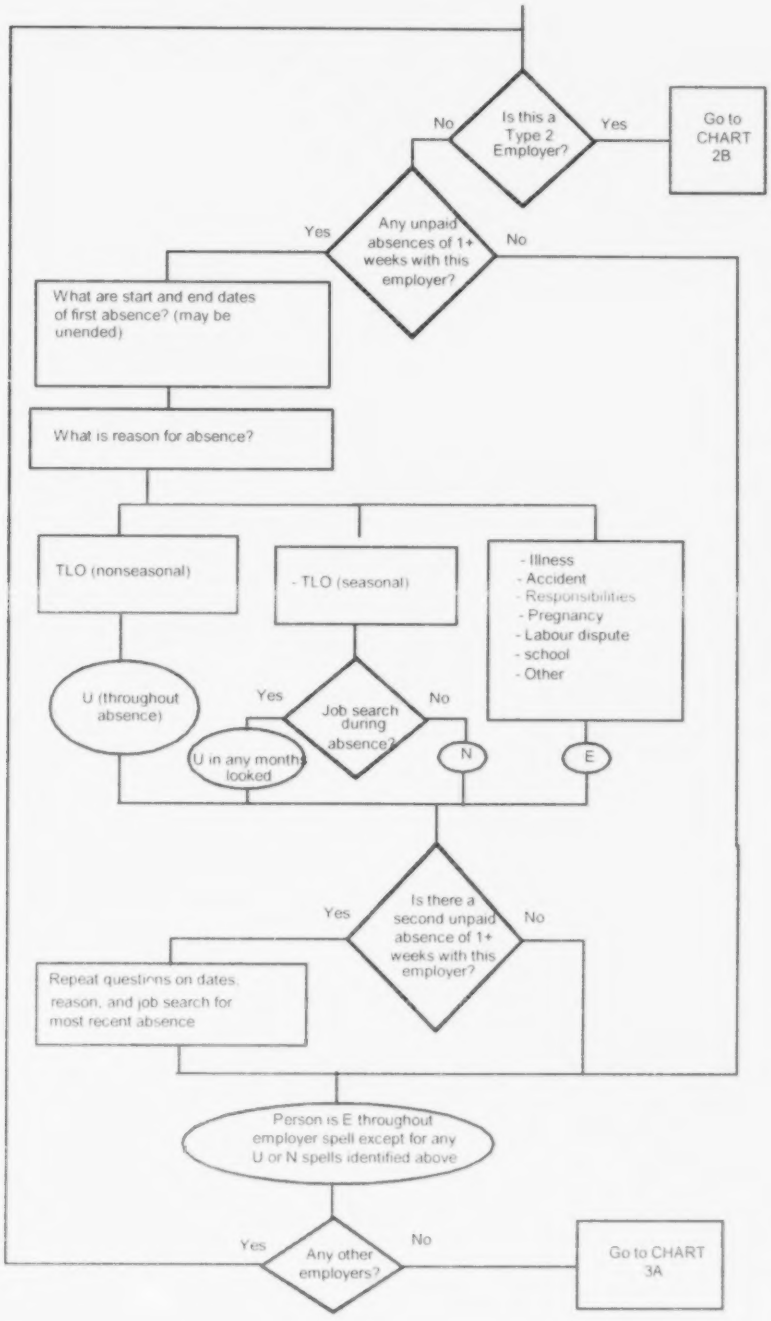
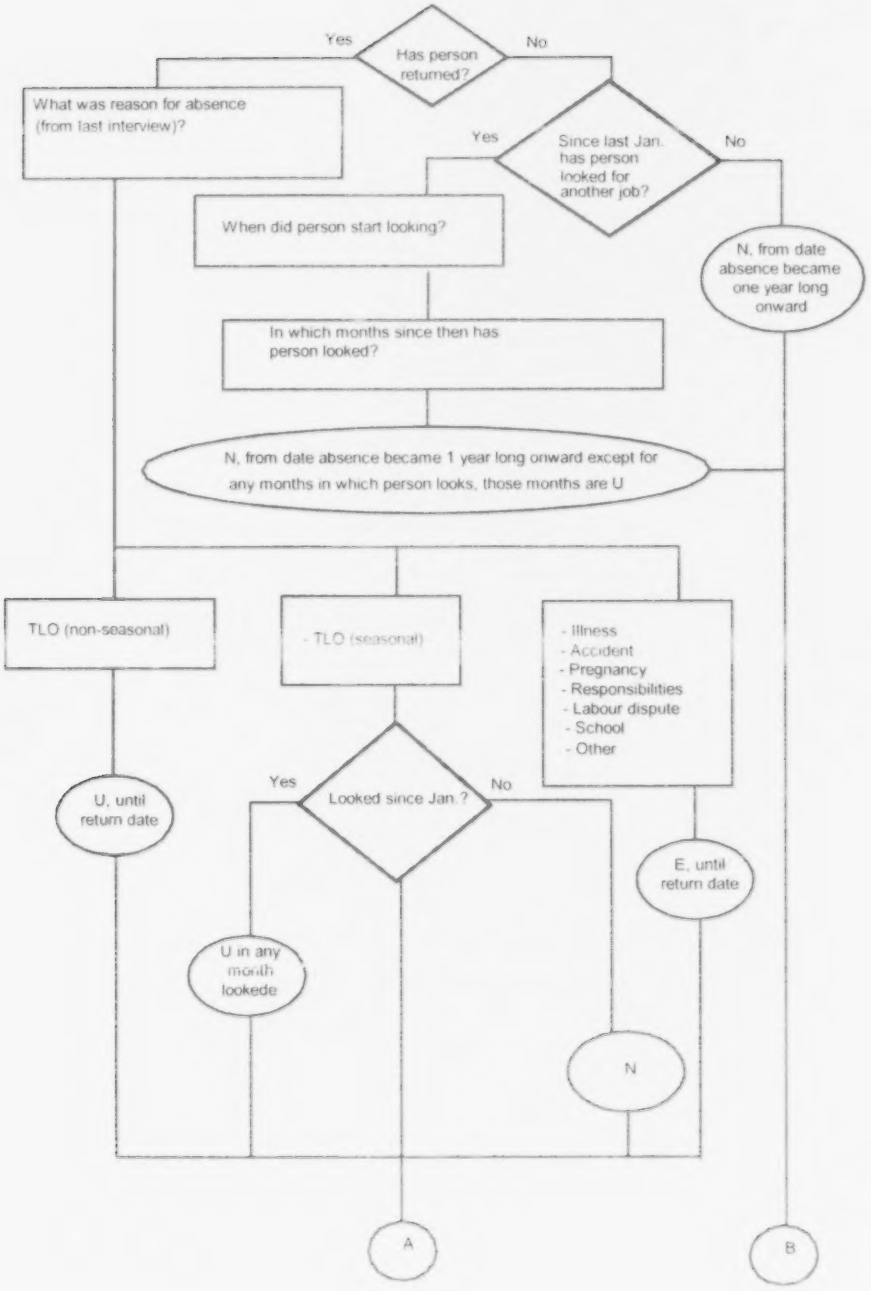


CHART 2B - ABSENCES FOR TYPE 2 EMPLOYERS



(Continued)

CHART 2B - ABSENCES FOR TYPE 2 EMPLOYERS (Concluded)

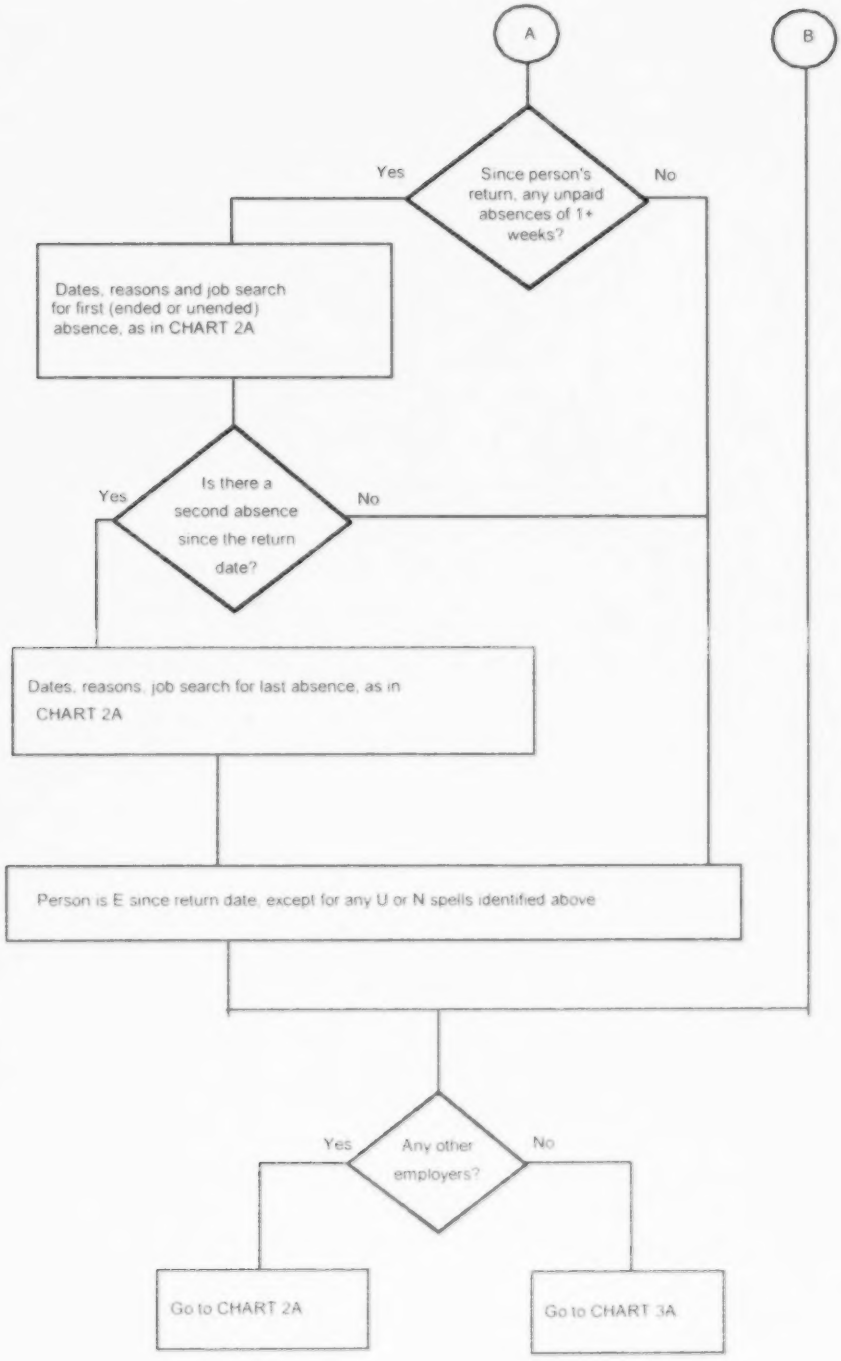

A
B
Since person's return, any unpaid absences of 1+ weeks?
Yes
No
Dates, reasons and job search for first (ended or unended) absence, as in CHART 2A
Is there a second absence since the return date?
Yes
No
Dates, reasons, job search for last absence, as in CHART 2A
Person is E since return date, except for any U or N spells identified above
Any other employers?
Yes
No
Go to CHART 2A
Go to CHART 3A

CHART 3A: Jobless Spells

Completed for all respondents 16-69 with a jobless spell (including those who have not worked at all) in reference period. Completed for EACH spell.

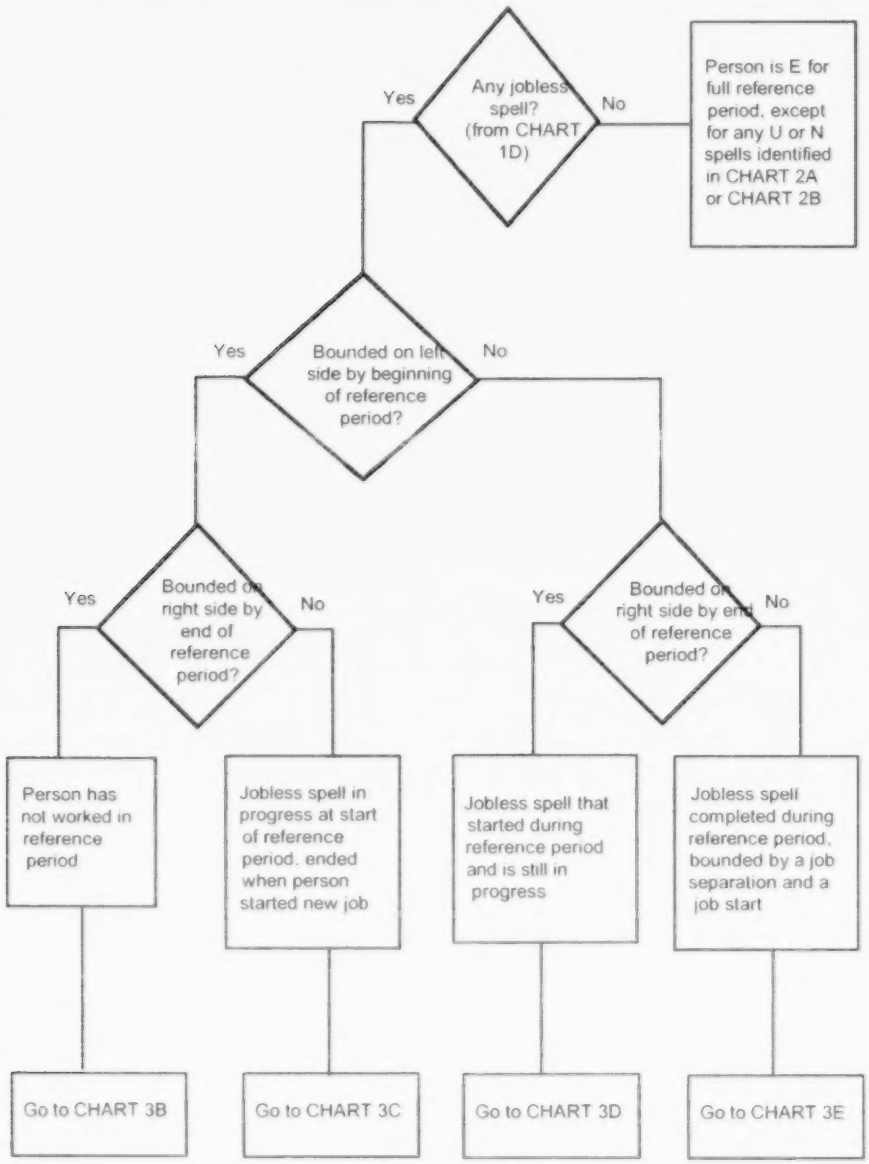

Any jobless spell? (from CHART 1D)
Yes
No
Person is E for full reference period, except for any U or N spells identified in CHART 2A or CHART 2B
Bounded on left side by beginning of reference period?
Yes
No
Bounded on right side by end of reference period?
Yes
No
Bounded on right side by end of reference period?
Yes
No
Person has not worked in reference period
Jobless spell in progress at start of reference period, ended when person started new job
Jobless spell that started during reference period and is still in progress
Jobless spell completed during reference period, bounded by a job separation and a job start
Go to CHART 3B
Go to CHART 3C
Go to CHART 3D
Go to CHART 3E

CHART 3B - Job search by respondents who have not worked in reference period

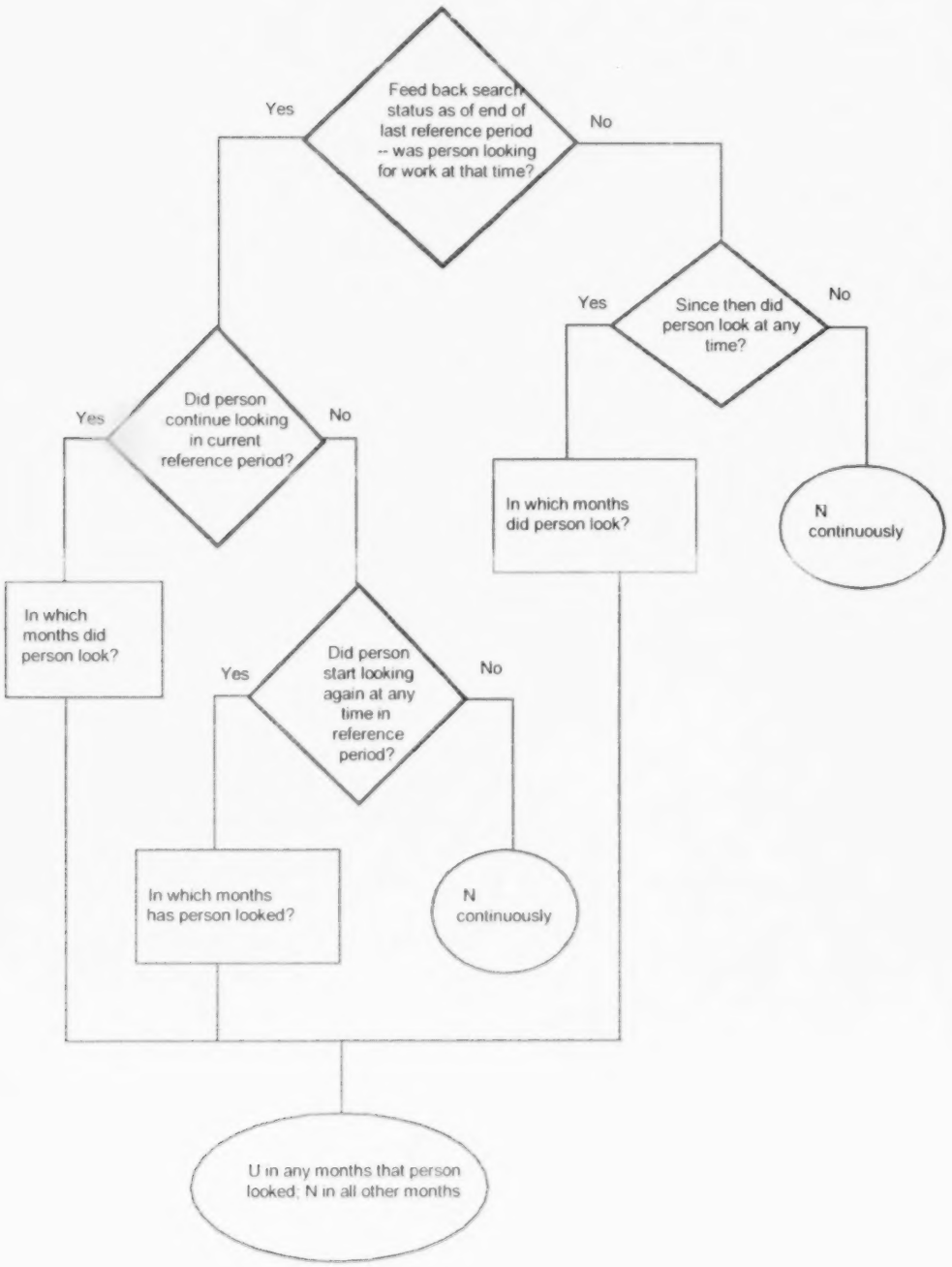

Feed back search status as of end of last reference period -- was person looking for work at that time?
Yes
No
Did person continue looking in current reference period?
Yes
No
In which months did person look?
Since then did person look at any time?
Yes
No
N continuously
Did person start looking again at any time in reference period?
Yes
No
In which months has person looked?
N continuously
U in any months that person looked; N in all other months

CHART 3C - Job search during a jobless spell in progress at start of reference period, that ended when person started new job

Feed back search status as of end of last reference period -- was person looking at that time?
Yes
No
Did person look in every month up to date job started?
Yes
No
U continuously from start of reference period to job start date
In which months did person look?
How did person get new job?
Active Method
Passive Method
In what month had person started looking?
In which months since then did person look?
Did person look at any time between start of reference period and job start date?
Yes
No
In which months did person look?
In what month did person get job?
In what months did person get job?
U continuously from month job obtained to start date; prior to that, U in any month since start of reference period that person looked; N in any remaining months

CHART 3D - Job search during a jobless spell that began during year and is still in progress

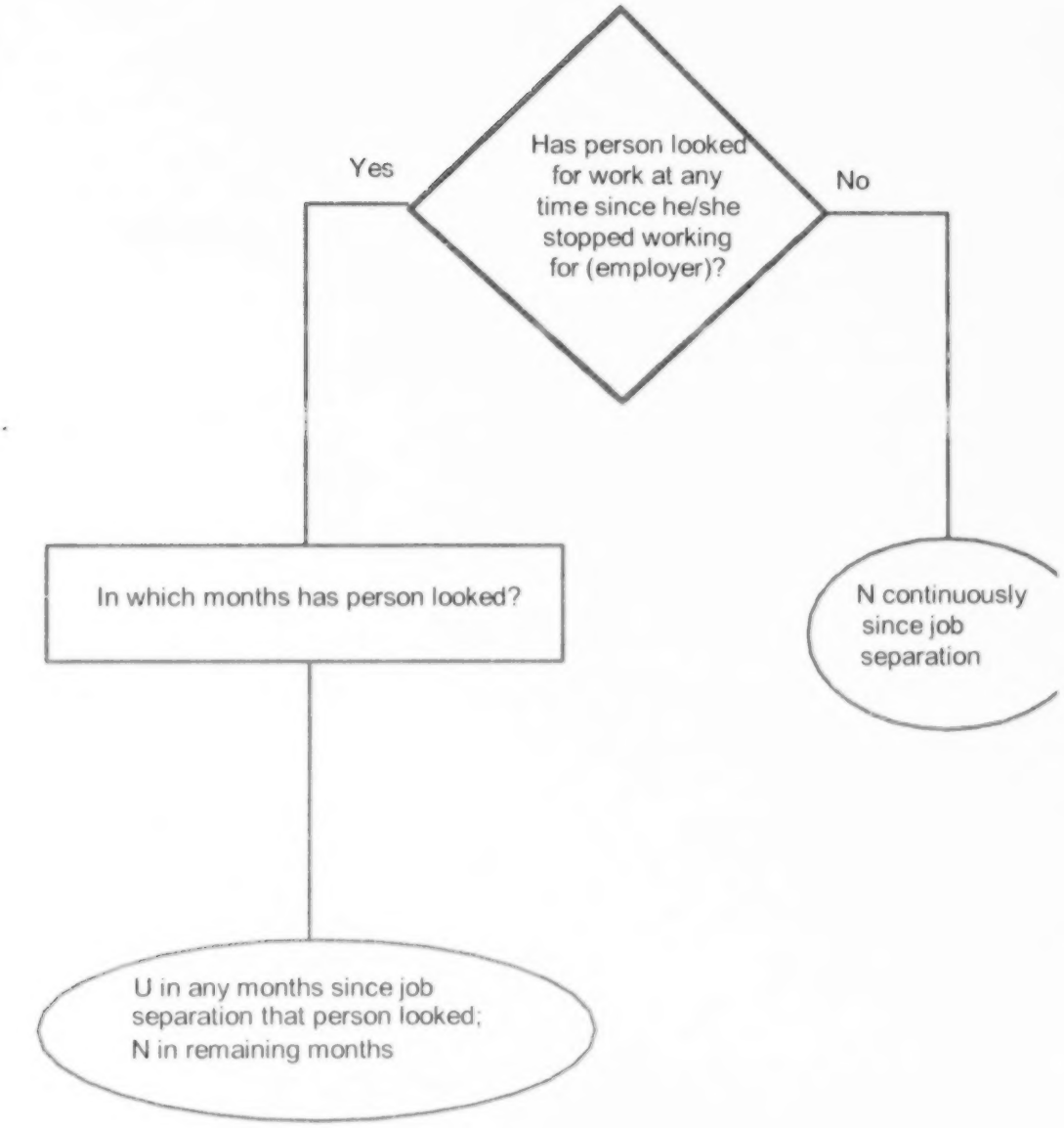
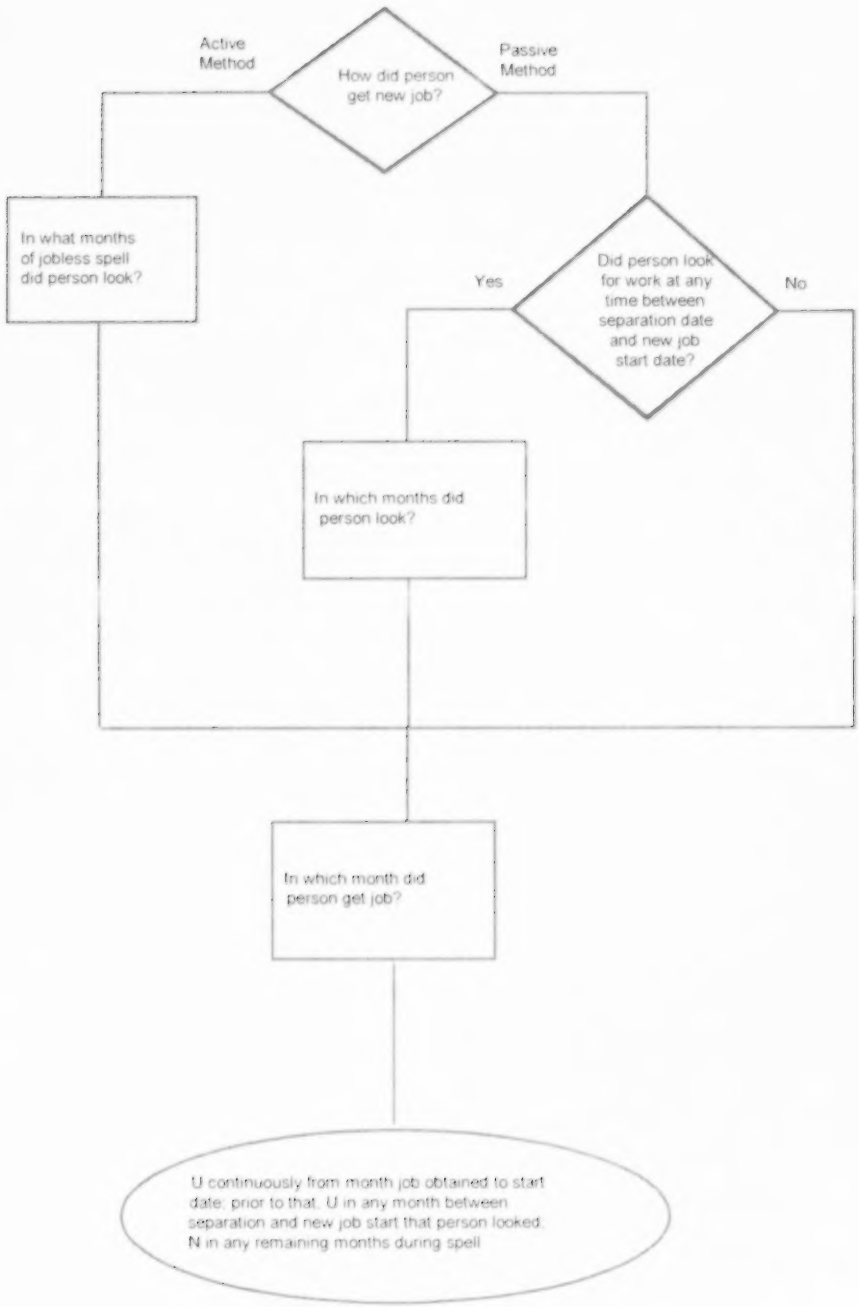

Has person looked for work at any time since he/she stopped working for (employer)?
Yes
No
In which months has person looked?
N continuously since job separation
U in any months since job separation that person looked;
N in remaining months

CHART 3E - Job search during a jobless spell completed during reference period

(bounded by a job separation and a job start)


How did person get new job?
Active Method
Passive Method
In what months of jobless spell did person look?
Did person look for work at any time between separation date and new job start date?
Yes
No
In which months did person look?
In which month did person get job?
U continuously from month job obtained to start date; prior to that, U in any month between separation and new job start that person looked; N in any remaining months during spell